

AMERICAN BEE JOURNAL



43d Year.

CHICAGO, ILL., APRIL 23, 1903.

No. 17.

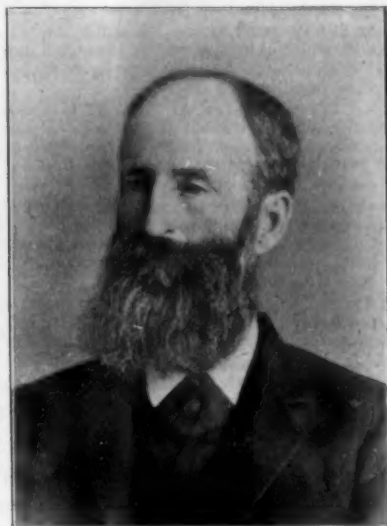
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THE AMERICAN BEE JOURNAL

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EDITOR,

GEORGE W. YORK.

DEPT. EDITORS,

DR. C. C. MILLER, E. E. HASTY, EMMA M. WILSON

IMPORTANT NOTICES.

The Subscription Price of this Journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50 cents a year extra for postage. Sample copy free.

The Wrapper-Label Date of this paper indicates the end of the month to which your subscription is paid. For instance, "dec03" on your label shows that it is paid to the end of December, 1903.

Subscription Receipts.—We do not send a receipt for money sent us to pay subscription, but change the date on your wrapper-label, which shows you that the money has been received and credited.

Advertising Rates will be given upon application.

Weekly Budget.

MR. W. A. PRYAL, of Alameda Co., Calif., wrote us as follows, April 6:

"This is a grand year for this end of California, and from reports it will be so all over the State. We have had abundant rains at the right time. The days are now perfect, and there is a profusion of flowers, wild and cultivated."

A CORRECTION.—In Mr. F. Greiner's article, on page 214, near the end, read as follows instead of the way it was printed:

"Twenty-five years ago honey sold for not materially more, although a very fancy lace-trimmed lot brought me 22 and 23 cents in New York; this year my honey brought, f. o. b. here, 15 and 16 cents. At this latter price the bulk of my honey sold in New York (on commission) in 1876."

MR. H. C. MOREHOUSE, editor of the Rocky Mountain Bee Journal, has lately been adding to his "force." He tells of it in the following paragraph:

The rapid expansion of our business has made necessary the employment of additional help. We have been looking for some one whom we hoped would prove a capable assistant for some months past, and on Sunday, March 15, he made his appearance. He arrived hatless, coatless, pantless, shirtless, baldheaded, and—nameless. He is nameless still, but is otherwise pretty well provided for so far as his immediate necessities are concerned. We have engaged him to tarry under our roof for at least 21 years, and we shall hope to admit him to an equal partnership at the expiration of that time. As this is the first assistant to the firm of Ourselves & Wife,

we feel considerably "stuck up" over the matter, and any discrepancies in this issue of the journal must be attributed to that cause. While our feet are still stumbling over the clouds of Mother Earth, our head is (it feels like it is) floating somewhere away up in the etherial blue.

Our congratulations to "The House of Morehouse."

Of course, Mr. M. is excusable for typographical errors this time. "Etherial blue" is "ethereal blue" in this "locality."

MR. TOFIELD LEHMAN and Miss Emma Butikofer, of Fayette Co., Iowa, were married Feb. 17, 1903. A local newspaper, when announcing the happy event, said:

Mrs. Lehman is a young lady of amiable traits of character, and will make a splendid helpmate. Mr. Lehman is a well-to-do farmer, and a gentleman in every respect.

Mr. Lehman is also a wide-awake bee-keeper, and doubtless that new home will have plenty of the sweet things of life.

A. B. CARPENTER, of Tulare Co., Calif., sent us the picture of his apiary and the following concerning it, dated Feb. 14, 1903:

I send an amateur photograph of my apiary taken by my son, and finished to put on our Christmas tree last December. I stand on the right, son-in-law next on the left. My wife stands behind a prop, being near-sighted she did not see it. My daughter on the left with a black cat in her arms. In the background is the extracting-house.

I have 90 colonies of bees, and shall lose a few, possibly. There have been but a few days this winter that the bees have not flown more or less. This morning was the coldest



APIARY OF A. B. CARPENTER.

of the winter, the mercury 21 degrees above zero; at noon the bees were flying more or less. The apiary is under two silkworm mulberry trees. The shade will measure 26 by 18 yards. They grow yearly long enough to place a row of stands around the outside. The trees have to be propped strongly to hold them up. When in full foliage they make a dense shade, and, of course, it is pleasant working under them in the hottest weather.

With me, last year was not a remarkably prosperous one. I do not know that I can be called more than an amateur, having had only four years experience with the extractor, and two years previously with comb honey. I love to work with the bees, but it begins to be heavy work for me at 75 years of age.

A. B. CARPENTER.

Through an error made by our engraver, the picture of Mr. Carpenter's apiary was made only about half the size we had intended. It must be a cool, shady spot in which to work with the bees when the trees are in full foliage.

Dr. Miller's New Book

SENT BY RETURN MAIL.

The book contains 328 pages, is bound in handsome cloth, with gold letters and design; it is printed on best book-paper, and illustrated with over 100 beautiful original half-tone pictures, taken by Dr. Miller himself. It is unique in this regard.

The first few pages of the new book are devoted to an interesting biographical sketch of Dr. Miller, telling how he happened to get into bee-keeping. Seventeen years ago he wrote a small book, called "A Year Among the Bees," but that little work has been out of print for a number of years. While some of the matter used in the former book is found in the new one, it all reads like a good new story of successful bee-keeping by one of the masters, and shows in minutest detail just how Dr. Miller does things with bees.

HOW TO GET A COPY OF DR. MILLER'S "FORTY YEARS AMONG THE BEES."

The price of this new book is \$1.00, post-paid; or, if taken with the WEEKLY American Bee Journal for one year, BOTH will be sent for \$1.75.

Or, any present regular subscriber to the American Bee Journal whose subscription is paid in advance, can have a copy of Dr. Miller's new book free as a premium for sending us Two New Subscribers to the Bee Journal for one year with \$2.00. This is a magnificent offer, and should be taken advantage of at once. For many of our readers it is not only an easy way to earn a copy of the book, but at the same time they will be helping to extend the subscription list of the old American Bee Journal, and thus aiding also in spreading the best kind of apicultural information among those who would be successful bee-keepers.

Address all orders to

GEORGE W. YORK & CO.,
144 & 146 E. Erie Street, CHICAGO, ILL.

Please Mention the Bee Journal when writing Advertisers *****

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ESTABLISHED IN 1861 THE OLDEST BEE-PAPER IN AMERICA

43d YEAR.

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* Editorial Comments. *

Ignorance About Bees.—Arthur C. Miller seems to be stirring up trouble by hinting in the strongest kind of a way that we don't yet know all about bees, and that what we don't know isn't always so. He seems to be wanting in respect for accepted traditions. For example, we all "know" that bees pack pollen in the cells by butting their heads against it after the fashion of a belligerent ram. To be sure, none of us ever saw a bee in the very act, and we never took the trouble to discuss whether it was a reasonable belief or not, but we've read it, and then it was easier to go right along believing it than to take the trouble to think about it.

Now, see the irreverent manner in which that fellow, Miller, goes for that venerable tradition, in the American Bee-Keeper:

As the pellets of pollen are dropped on the floor of the cell by the gathering bee, a mere ramming in by the head of any bee would pack it very unevenly, much at the lower side and little or none at the upper, a consideration which heretofore seems never to have attracted attention. Also, as every organ is adapted to its particular function, we should expect to find the front of the bee's head hard and smooth, if it was intended and used for this purpose; whereas it bears a pair of delicately articulated antennae, and simple and compound eyes protected by a multitude of fine hairs, surely anything but a battering-ram.

As a matter of fact, the pollen is packed by the bee with its mandibles, and is a process of pushing, kneading, and spreading. The work can often be found in an incomplete stage, and the pollen will then be found thickest at the lower part of the cell, but it does not remain so, for that, or the next lot, will be worked into the upper part, making all even.

Bulk Comb Honey (comb honey cut out of the frames and packed in cans or other vessels and filled out with extracted honey) is strongly advocated by H. H. Hyde in an article in the Bee-Keepers' Review, in which he says:

It has been demonstrated time and again that bees will store all the way from 50 percent to 100 percent more honey when worked for bulk comb than they will when worked for section honey, and many believe (the writer included) that where the bees are worked as outlined above, nearly, if not quite, as much bulk-comb honey can be produced as could be produced of extracted honey alone; and especially does this hold good where the localities have fast flows of honey, in which a great amount of wax is always secreted whether there are any combs to build or not.

If it is true that an average of 75 percent more bulk than section honey can be produced, and if the bulk can be sold for 57 percent as much as the section honey—to make it a little more concrete, if the bulk brings 8 4-7 when the section brings 15 cents—then the scales will promptly turn in favor of the bulk, for the amount of money received will be the same in either case, while the outlay of money and labor will be less for the bulk.

There may, however, be some question whether in other localities than that of Mr. Hyde would the proportion of bulk to section honey be so great. Many would probably find that they could secure very nearly as much honey in sections as in full frames, and in this same article Mr. Hyde assures us that it requires as much skill and as fine a grade of honey for bulk as for section honey. Of course, however, there must be figured in favor of the bulk the amount of extracted packed with it.

Each one must decide for himself as to the proportionate amount of honey he can secure, and the relative price in his market.

DEATH OF DR. E. GALLUP.

On Monday morning, April 13, we received the following letter announcing the death of Dr. Gallup:

ORANGE CO., CALIF., April 7, 1903.

EDITOR YORK:—My father, Dr. E. Gallup, died Sunday, April 5, at 3 o'clock. He had been sick in bed about six weeks, but had been failing in health for about two years. He would have been 83 years of age on the 22d of next August.

I have 14 colonies of bees now, 3 of this year's swarms, one having come out to-day at 1 o'clock. Bees have just begun to store.

Yours sincerely,

HERBERT S. GALLUP (aged 16).

So Death, the ruthless reaper, has cut off another of the old-time bee-keepers—this time one of the very earliest writers on bees in this country, as well as one of the very latest writers, for only last week we published an article from his pen, and still have one more, which will appear soon.

Dr. Gallup was always a good friend of the American Bee Journal. He rendered it noble service at times when such service was of untold value—before either Mr. Newman or its present editor took hold of it. At one time, in its early years, his timely aid seems to have saved it from what might have been a total collapse.

For a number of years Dr. Gallup's name disappeared from the printed pages of the bee-papers. Just why, we do not know, unless it was that he was almost entirely out of bee-keeping during those years. But about 10 years ago we saw his name somewhere, and decided to resurrect him as a writer if we could, and so wrote to him. The result is well known to all who have been regular readers of the American Bee Journal for the past few years.

Dr. Gallup was Mr. Doolittle's teacher in bee-keeping, over 30 years ago, and his book, "Scientific Queen-Rearing," was dedicated to him.

A few biographical notes would doubtless be interesting to all, which were published in these columns in 1893, having also appeared in a bee-paper (now extinct) in 1870:

Elisha Gallup was born on Aug. 22, 1820, in the town of Melbourne, county of Sherbrook, Canada East. His parents were born in Connecticut, on Long Island Sound. By occupation he is a farmer, with the exception of eleven years a miller. He removed to Wisconsin in 1859, and settled in the town of Metomen, Fond du Lac county. In June, 1865, he removed to Mitchell county, Iowa. And now, in the fear that we may not do justice, we will here introduce friend Gallup, and let him speak for himself:

"From my earliest youth I have been an enthusiastic admirer of the busy bee; in fact, my earliest recollections are of the bees and bee-hives. Often have I heard my mother say, if she lost me when a little fellow, she was sure to find me by the bee-hives. My intense desire to learn and investigate the bees in every particular has been such that I have dreamed of them at night, and thought of them in my waking hours to an almost absorbing extent, and to-day I am still a student; and I find those persons who proclaim themselves finished in every branch, are the ones who in reality know the least.

"My early advantages were of a limited nature in the way of education—scarcely common-school advantages did I have. My first reading upon the subject of bees was a small pamphlet written by a Mr. Weeks, of Vermont, which abounded in errors. My next was a work by Mr. T. B. Miner. I picked up my first real insight into the true system of bee-keeping from an old German by the name of Well-huysen. He made 125 colonies from one in two seasons. And here I will remark that I have been suspected of getting my knowledge upon the subject of bee-culture from Mr. Langstroth's work; but to settle that matter quickly and satisfactorily, I have never been known to quote from Mr. L.; neither could I have done so, from the fact I had it not to quote from. Once I remember to have had the privilege of skimming through it one evening, at the house of a friend, and that was merely to see if there were any new ideas put forth.

"Eight years ago last season (in 1861) I obtained my first movable-comb hive. My progress from that time I felt was rapid, from using a glass observatory hive of a single comb, for several seasons in Canada, of my own getting up. In my own opinion, the movable-comb hive is very far superior.

"Mr. Quinby's first edition of his book struck me as being excel-

lent; and when I saw an advertisement of his second edition, knowing that he had the advantages of the movable combs, I looked forward with confidence, and expected to see some questions fully discussed by him which I considered of vital importance; and when I obtained the book and found that it had almost stood still, and those questions not even mentioned, I was disappointed in the work, and this determined my course to some extent.

"For the purpose of fitting myself to appear before the reading world, I attended writing school, so as to accomplish myself in at least writing a legible hand. This was in the winter of 1865-66. As you say, you are somewhat familiar with my writings, I leave you to judge of my success. My disadvantages at my time of life I fully appreciated; but being a man who has the fortitude not to look back when the hill has once begun to be climbed, my ambition and energy kept me ever on the onward path. I commenced first to write for the American Bee Journal, and to-day my private correspondence would fill a goodly-sized volume, of which I am proud—with innumerable testimonials from different parts of the United States and Canada, and from those who were entire strangers, which enhances their value, being assured it is not flattery."

In a letter written to us, dated July 20, 1893, which we published Aug. 10, 1903, Dr. Gallup said this:

"I have but very little time at command now to reply to your request, but I send you a photo which I had taken about three months ago. All my friends say it looks older than I really do. Every one says that I hold my age remarkably. I know that many a young man does not show the activity that I do.

"Of course, I am not in the bee-business now, but I still take a great interest in the business, and when I see a couple of boys managing an apiary and taking out 20 tons of honey this season, and others in proportion, it makes me sort of hanker after the bees as of old.

"My second wife died last March, and left me with three little ones—the oldest six years, and the youngest two years—and I am caring for them without the assistance of a woman. I will be 73 years old the 22d of next month, and I am still strong and hearty, and, to all appearance, good for some time yet.

"I left Iowa completely broken down, both mentally and physically, and I have regained both in this grand and glorious climate. I was fully determined to go into the bee-business here, and did make a start, but the demand for my services as a hygienic and common-sense doctor has been such that I could not get out of the business, and to carry on the two was impossible.

"I feel now that I must live to care for my little boys and girl. They are the comfort of my old age.

DR. E. GALLUP."

The children left by Dr. Gallup will have the sympathy of all bee-keepers in their lonesomeness and bereavement. They can have the encouraging feeling that their father was an important factor in the development of progressive and practical bee-culture in its infancy, when Langstroth, and Quinby, and Grimm, were also laboring to place the industry of bee-keeping on a sure foundation.

Curing Foul Brood in Early Spring.—M. A. Gill has a profitable cure for each foul-broody colony just so long as hives hold out in which healthy colonies have died the preceding winter. Here is the bill of particulars as given in the Bee-Keepers' Review:

Early in the spring, before the colony has expended much energy in rearing brood to die, I drive the bees from the foul-broody colonies into an empty hive or super, and set them away in some convenient place for 28 to 36 hours. Then, after warming up one of my hives of combs and honey I sprinkle the bees, which, by this time, may be a little sluggish, and after they have fed each other and become lively, I run them into the hive above mentioned.

Of course, there is nothing new, nor remarkable about this cure, only that you have cured your diseased colony; and have done it at a time when they can build up rapidly, as all their brood will hatch instead of perhaps only 40 percent. You have also used your empty combs to the best advantage, and shut off the chances of a diseased colony being robbed out during the dearth of spring, by perhaps two or more of your healthy ones.

Uniting Weak Colonies in Spring.—A beginner, who has a number of weak colonies in the spring, is likely to think he will help matters by uniting them. Those of more experience know that a number of very weak colonies united in the spring will disappear in just the same time as if left separate, but that there is some gain by uniting one or more such weaklings or dwindlers with a fairly strong colony. They have learned this from experience, but perhaps no one has heretofore given the reason why. The following from Arthur C. Miller in *Gleanings in Bee-Culture* is refreshing;

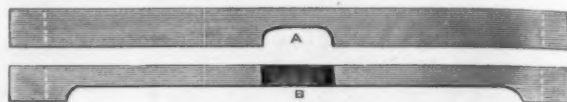
A colony weak in the spring is composed very largely or entirely of old bees. They must keep warm, gather food, and rear brood. Each day their numbers decrease rapidly, and but few young bees are hatched to take their place. The old bees are enfeebled; they easily succumb to the adverse weather conditions, and wear out quickly, the effort to keep warm and rear brood being too much for them to do successfully. Unite several such colonies, and you have not materially changed the conditions. It is just as hard for them to feed brood;

nearly as much energy is required to keep the necessary heat, and their death-rate is the sum of that of the individual colonies. But put one or more such weaklings with a good colony, the old bees are at once relieved of all nurse duty, and of playing furnace. They start out from a warm hive, and can put every bit of their waning strength into gathering nectar, the usual work of such bees under normal conditions. While they last they are a real aid to the strong colony; and when they are gone, young bees nourished by the nectar they have gathered, are ready to take their places.

Uniting in the fall is generally done under reversed conditions. The bees are almost always young, or a large part of them are; brood-rearing is decreasing, and field-labor is about over, consequently a combination then of several small colonies into one good-sized one is successful if done early enough.

A Hive-Entrance Reducer, gotten up by Mr. L. M. Gilbert, of Dupage Co., Ill., is described as follows:

The engraving herewith represents a piece of wood $\frac{3}{4}$ of an inch square and $14\frac{1}{4}$ inches long, with a space cut out on one side $\frac{3}{4}$ of an inch by 11 inches (B in the illustration), and on one adjoining side $\frac{3}{4}$ of an inch by 2 inches (A in the illustration), and is designed as a reducer for the deep entrance of the Danzenbaker bottom-board, the



combined bottom-board and hive-stand, or any entrance of $\frac{3}{4}$ inch or less in depth.

This is to be placed on the bottom-board with cut-out down, and pushed under the front of the hive-body even with the front.

A small staple or nail driven on the inside of each side-piece of the bottom-board, and on a line with the inside of the front of the hive, will prevent it going under too far.

If using the $\frac{3}{4}$ -inch side of a reversible bottom-board, and wishing to reduce the entrance, it can be placed flat side against the front of the hive with the small opening down. With the deep entrance and one of the spacing sticks you can have any one of three size openings. The spaces may be varied to suit the individual.

Without the use of a bee-veil, or disturbing the bees in any way, you can walk up to the side of the hive and remove or place in position one of the reducers at ten or more hives in the same time that you could lift a hive from the bottom-board, reverse it, and set the hive back in place.

If the stick is not in use it can be left on the cover, and will be always at hand when needed. The length, as given above, is for a 10-frame hive, but if one inch is cut off of each end it will fit an 8-frame hive.

One hundred of these sticks make a package only 9 inches square and $14\frac{1}{4}$ inches long.

L. M. GILBERT.

Why Demand for Honey Sometimes Falls Off.—Here are some words of M. Moyer, in *Gleanings in Bee-Culture*, that some bee-keepers ought to paste in their hats and read over semi-frequently:

At present it seems to be the aim of bee-keepers to get their honey off their hands at the highest prices, and care very little what becomes of it after that. They have not studied sufficiently the importance of creating a greater demand for their goods. A pail of good honey, sold in good condition, will create a demand for another one; but if it does not give satisfaction it spoils the sale of perhaps a dozen. I know from personal experience that families averaged 10 pounds a month as long as they got a good article, and that one pail of inferior cut off that demand for a whole year. They imagined they got tired of honey, when the fact was the honey was not up to the mark.

Honey as a Health-Food is the name of a 16-page leaflet ($3\frac{1}{2} \times 6$ inches) which is designed to help increase the demand and sale of honey. The first part is devoted to a consideration of "Honey as Food," written by Dr. C. C. Miller. The last part contains "Honey-Cooking Recipes" and "Remedies Using Honey." It should be widely circulated by every one who has honey for sale. It is almost certain to make good customers for honey. We know, for we are using it ourselves.

PRICES, prepaid—Sample for 2 cts.; 10 for 10 cts.; 25 for 20 cts.; 50 for 35 cts.; 100 for 65 cts.; 250 for \$1.50; 500 for \$2.75; 1000 for \$5.00. If you wish your business card printed at the bottom of the front page, add 25 cts. to your order.

Maple Sugar and the Sugar Bush, by Prof. A. J. Cook: 44 pages; price, postpaid, 30 cents. This is by the same author as "The Bee-Keepers' Guide," and is most valuable to all who are interested in the product of our sugar-maples. No one who makes maple sugar or syrup should be without it. Order from the office of the American Bee Journal.

Convention Proceedings.

Chicago-Northwestern Convention.

Report of the Chicago-Northwestern Bee-Keepers' Convention, held in Chicago, Dec. 3 and 4, 1902.

BY OUR OWN SHORTHAND REPORTER.

(Continued from page 245.)

FOUL BROOD—ITS CAUSE AND CURE.

A Member—That larva that lies down against the side of the cell, is that after the cell is capped?

Mr. France—It has probably been capped; it is beginning to have this sunken appearance, and about to begin that perforation in there?

A Member—Then you can not detect foul brood in cells that have never been capped?

Mr. France—I should usually say no, unless you have been schooling yourself on this, and looking for it before hand.

A Member—Would the introduction of the queen from a foul-broody colony received through the mails introduce foul brood?

Mr. France—Well, I am not a queen-breeder, nor don't want to affect any one's market. I will say yes and no; no, providing you take that queen-bee and introduce her in a clean cage and destroy the cage that she came in. Right on that point: In the largest county of our State we had a peculiar case. There were some 40 odd hives, new that season from a supply house, that had never had bees in them; he had put his new swarms in them; the old queens were not desirable ones; he sent to one of our distant cities for some queens—five of them—and introduced them in the cages they came in. After a time he wrote me that there was something wrong in those hives, and so remarkable an instance was it, that it was every other all in one row, it excited my curiosity. How could it be so, and what was the cause? No other bees in the vicinity were diseased. Why should these be, and in that peculiar way? Finally I learned that these five queens had been introduced in those same hives; then I said, "You put it there. Where did you get your queens?" He told me, and I said, "That apiary is diseased; I know it has been for some time."

I have answered a good many questions in our State, and I have written out the answers and questions, making them very short, and will read them; they may be of help to some one here:

QUESTIONS AND ANSWERS ON FOUL BROOD.

1. How does foul brood become contagious? By robber-bees getting diseased honey.

2. Do the germs float in the air and thus spread? No. Often bees hatch from diseased combs.

3. Are any combs from a diseased colony safe to use? If so, what and where? Combs above a queen-excluder, or those never having had brood in are generally safe if they have been cleaned out by the bees and exposed to the air for some time. They need careful inspection before using; also after.

4. Is honey from diseased hives safe for people to use? Yes, but not desirable.

5. Can honey from diseased combs be safely fed to bees? Yes, if *boiled* first. By that word boiled, I mean the honey boiled—all to boil, and stir it while boiling.

6. Is foundation from diseased combs safe to use? Yes. I proved this in 82 trials.

7. Does foul brood affect adult bees? I think not much. They gather honey and swarm.

8. How long will it take foul brood to destroy an apiary? That depends upon conditions, seasons, etc. I know of 108 colonies, strong in April, and all dead inside of one year. Others were diseased more or less for 12 years, but they had fair management that saved them. Usually one to three years.

9. Will a queen from a diseased colony produce diseased brood? No; but I know of several cases where the intro-

duction of foreign queens in the cages they came in caused disease. It is not safe to use foreign cages to introduce queens in. Put the queen in a clean cage on arrival, and burn the other and bees in it.

10. Is honey stored above the brood in boxes or super-combs safe to use? Yes, for people, and possibly for bees. I know it is if boiled before using.

11. Are super-combs partly drawn out over diseased brood, that have not had honey stored in them, safe to use? Yes, as a rule.

12. Is there any danger of using tools that have been used in handling diseased bees? Yes, if they have become soiled or stained with honey from the diseased hive.

13. How do you disinfect such? Plenty of hot water kills the germs.

14. Can you cure this disease late in the fall. If so, how? If you have plenty of sealed honey in healthy combs, after brood-rearing is over, place the combs in a clean hive and drive the bees in it with smoke, or, better, brush them from the combs into the new hive, and the colony is cured. The diseased combs to be treated later. But if you have not the above, and the bees have a good supply of honey and bees, they will winter, and then treat them next spring. Take great care that no robber-bees enter the hives.

15. What harm is it if you make public the names of places diseased, or owners of such bees? Allow me to illustrate: Your bees are diseased; you sell queens; I make public foul brood among your bees. How many queens would you sell? The same is true in the sale of honey. On the other hand, we at once cure the bees, and everything is perfectly safe—then your business is as before. The National Association can do a good deal in this line some day.

16. Is it necessary to burn anything to cure foul brood? No. But often it is good economy. It all depends upon surrounding conditions.

17. How do you cleanse a diseased hive to make it safe to use again? Generally all that is needed is to scrape the inside of the hive. But if honey has been soaked into the lumber I would use some boiling water. The danger, as a rule, is not in the hive. Wm. McEvoy has cured thousands of cases and not scalded the hives.

18. Is there any danger of buying combs to use? Yes. I know of many cases where that was the means of contracting disease. Also using implements from strangers.

19. Is solar or sun extracted wax, honey, or the refuse from such, safe to use? No, not if any diseased combs were in the extractor. It is not hot enough.

20. Is there any danger in buying second-hand honey-cans or barrels? Yes. And I want to say second-hand goods of any kind are poor property to store honey in. Especially the 60-pound tin can, if emptied by manufacturers.

21. Will pickled brood, or black brood, produce foul brood? No. They are separate and a different germ. They are not liable to be in the same hive. Small-pox will not produce diphtheria, scarlet fever, or typhoid fever.

22. Can foul brood be cured by abundant feeding? No, so long as there is an abundance of feed coming in, either from natural sources or from feeders. When the supply stops, and brood is fed from stored honey from a diseased cell, said larvæ will become diseased and die.

23. Will a foul-broody colony swarm? Yes, it is often the case. Diseased lightly.

24. Will a diseased colony carry disease while swarming? Yes, it is liable to do so.

25. If such a colony goes to the woods, will that bee-tree be diseased? No. I have proven this in four cases at least. Said bees are without any combs or even foundation in the tree until they have produced it, and by that time they have consumed what diseased honey they took with them.

26. How, then, can a bee-tree become diseased? By the bees from the tree robbing some diseased colony.

27. In a locality where foul brood exists, if all diseased colonies are treated, is there not great danger from diseased bee-trees near by? No. A diseased bee-tree will soon have no live bees, and the squirrels and bee-moths will soon dispose of everything in the tree. This I have also proven in several cases.

28. Are any of the drug treatments a sure cure? No. They only check it for a time.

29. Is there any sure-cure method? The McEvoy treatment cures every time, if carefully followed.

30. What is the real cause of foul brood? It is hard to tell. We know conditions where it produced disease.

31. If my bees are diseased what will it cost to cure them? and can I expect anything from them the same sea-

son? In Wisconsin it costs the bee-keeper about 25 cents per colony; also my board for one or two meals, if I help him. We save the wax, honey, hives, and bees, losing only the brood at the time of treating. I take as my baggage a latest improved wax-press, and it is freely used. Every bee-keeper should have one. In an apiary I inspected the first of July every colony was more or less diseased. I gave instructions what to do; the owner did as directed; I returned 23 days later—hives full of combs and brood, and 48 finished sections per hive. Basswood bloom.

32. If there is no disease in our part of the country why do we need any one to inspect our bees? You do not know the condition of your neighbors' bees—no, not so well as your bees do. There is too much exchanging among bee-keepers, and buying queens and other supplies from strangers.

33. Should every State have legislation on foul brood? Yes. If so, and the laws are enforced, the disease would soon be gone.

34. How can legislation be secured? Very easily. All join your State Association, and through that you can get what you ask for. Of course, all such will belong to the National Bee-Keepers' Association.

A Member—Will bees that are diseased by foul brood show more viciousness, and more easily attack a person that raps on the hive?

Mr. France—No, sir, I think not; if anything there will be a tendency, I think, the other way.

(Continued next week.)

Contributed Articles.

Emptying Unfinished Sections and Using for Baits.

BY G. M. DOOLITTLE.

I QUITE like that department of "Our Bee-Keeping Sisters" in the American Bee Journal. It is all of it good reading, very interesting, and a help to the men as well as to the women. But there is a sentence on page 199 that I cannot understand, and when I do not understand a thing I am almost sure to ask, "Why?" The sentence is this:

"We want our sections all emptied in the fall, as we use them for bait-sections, and would consider them spoiled for that purpose if the honey was allowed to candy in them, as it will be sure to do if left till spring."

Now what I want to know is, *Why* would Miss Wilson consider bait-sections spoiled because honey had candied in them? Will she please tell us in her department, and then we can all know of this matter?

With the exception of one year, I have always left my partly filled sections till spring to be cleaned out, and if they are spoiled for baits for this reason, I did not know it. And the honey always candies in them to a greater or less extent, the same as she hints at its doing in Illinois.

One year I tried the "robbing" plan in the fall, and supposed I followed the directions given for this job to a "T," but when I came to overhaul the supers I found fully one-fourth of the combs in them so torn that they were practically spoiled as far as their being of any use for baits. I then decided that I would follow my old plan of having them cleaned in the spring; and now Miss Wilson tells me they will be spoiled if I do this.

One of the reasons for my leaving them till spring is that the bees are *always* sure to clean them, and that without tearing the combs in them, by placing them over almost any colony of bees; but if so placed in the fall they will often fail to clean them, and so I have to remove them partially cleaned when I come to prepare the bees for winter.

The second reason why I leave them for spring is, that I can at this time feed any colony which may be short of stores, and to do it in a way that will stimulate brood-rearing to such an extent that I often gain more from the brood thus reared (when turned into bees for the honey harvest) than the honey would be worth for any other purpose. With the fall "robbing" plan we cannot feed the colonies we want to; in fact the larger part of the honey thus fed is gotten by just the colonies which do not need it at all.

The way I do this spring feeding to have sections cleaned out is to put a sheet of enameled cloth, the size of the top of the hive, over the frames, and on this placed a "bee-quilt," so that the enameled cloth will be kept warm, and thus drops of water will not form on the outside, as it will if only the enameled cloth is used, on cool nights.

This enameled cloth has one of the front corners turned up so that a few bees can pass through at a time, and on this is set a super of wide frames—to the number used when full, lacking one—and these are spread about a bee-space apart. On this super is set the super of part-filled sections, the sealed part of which has the sealing broken with a wire hair-brush, or by passing a table-knife flatwise over the capping. This allows the honey which drips from the broken cells to fall down on the wide frames, and then dripping down through them and over them on to the enameled cloth below, to an extent sufficient to rouse the bees to great activity; and the carrying of the honey causes them to feed the queen, and she in turn lays lots of eggs, while the excitement of the whole keeps the brood-chamber up to that point of heat at which brood-rearing is carried on to the best advantage.

Opening hives a week after they have been so treated, I have found them with more than doubled brood, and thought I was doing a nice thing in this way. But Miss Wilson says not.

The combs are left on till I want them for use, when this super of cleaned sections is raised up (as we do in taking off filled supers), a bee-escape board slipped under, and the next day or two the whole is taken off free from bees; and, so far as I can see, in perfect condition in every way. And why should this not be so? Why are they not cleaned as perfectly as by the fall robbing plan? Allow me to ask Miss Wilson if she has tried bait-sections cleaned in the fall and those cleaned in the spring, side by side in the supers during the next honey harvest? If so, could you detect any difference between those cleaned in the fall and those cleaned in the spring, after both were filled with new honey? I have tried this, and I could not detect the least particle of difference in any way, shape or manner.

Can't the bees clean sections or the cells of the honey-comb as clean in the spring as in the fall? They always do, so far as I know. Can't they clean them *CLEAN* and free from honey, whether candied or otherwise, in the spring, summer, or fall? I know it has been claimed that all the candied honey is not cleaned out, and hence the new honey in spring-cleaned sections is tainted by the old candied honey, and thus the new is made to candy in the combs. But all of my experience goes to prove that such claim is a fallacy?

Did Miss Wilson say what she did, from a belief in this old assertion, taking it for granted that it was true? or has she other reasons for the sentence quoted? If other reasons the whole bee-fraternity stands "agape" for those reasons.

I consider this thought, that no section should be used after honey has candied in the cells of the comb therein, as a relic of the past, when it was asserted by some that the whole section once having been worked in by the bees so as to store it partly full, was fit for nothing hence forward but to melt up the comb and make fire-wood of the wood part. I fought such advocacy of waste, at the time, as did others, and supposed the whole idea had been dropped, till I noted that sentence from the pen of Miss Wilson.

Now if spring-cleaned sections are just as good as those cleaned in the fall, bee-keepers want to know it. From my own experience, by testing the two side by side several different times, I say they are. What substantial proof can be given saying they are not? It is not sufficient to say we have known honey to candy in them. So have I known it to candy in newly-built combs, and those fall-cleaned, and in some seasons quicker than in others. But I have never known of it candying any quicker in the sections which were cleaned in the spring than in those cleaned in the fall. If the spring-cleaned are just as good, there is much advantage in leaving the part-filled sections to be cleaned at that time, as all bee-keepers will readily see without my taking time to enumerate the advantages here more than I have done in the above.

There was a time when it was said that comb foundation in sections was of little advantage unless it could be put in the same *right fresh from the mill*, and immediately on the hives. This I fought also, and proved by testing the fresh and that four years old, side by side, that the bees accepted one as quickly and as readily as the other; and everybody now purchases foundation at any time of the year when most convenient, which is a help to them and the manufacturers, much above what it would have been to

have clung to a fallacy repeated o'er and o'er, first made by some one who only guessed that he was telling the truth. And I expect that this matter of *only fall-cleaned sections* will turn out the same way when *careful experiments* are made along this line. Onondaga Co., N. Y.

Sulphuring Honey to Protect from Bee-Moths.

BY D. M. KETCHAM.

I OFTEN notice in the American Bee Journal references to fumes of sulphur having injurious effect on honey-comb and not killing the larvæ of bee-moths. As I have acquired some experience of value to me on this subject, I will give it to benefit other readers.

There seems to be a difference of opinion among bee-keepers in using the fumes of sulphur to kill the larvæ of the bee-moth, while others object to its use on account of coloring the comb and thus reducing its value when placed on the market.

In 1870 we had four apiaries that averaged 55 colonies each, and at that time we used a four-pound box containing two combs, and after taking the boxes of honey from the hives and keeping it from the larvæ of the bee-moth until sold was to me a disappointment, one way or the other. If we sulphured it, it looked yellow, green and white—rain-bow like—didn't please the eye, and brought less money. If we did not use sulphur the larvæ of the bee-moth made many boxes unfit to place on the market.

But in sulphuring we noticed some of the combs yellow or green, while other combs remained white and free from color. This set us to thinking that there was a right way and a wrong way of doing things. We worked hard to find the right way, for we believe it pays well to learn which way that is.

After experimenting a great deal, and learning nothing of value, one morning, very early in the wee hours, I awoke with my head full of "bee-biz." And it appeared to me the damp or wet combs only were colored by the fumes in sulphuring. So that very morning we took 20 boxes of honey and placed them on the table near an open window so the wind would blow all about them, and left them there until 2 p.m. Then they were taken to the house used for sulphuring and placed on the racks. Then 20 boxes of honey was selected that was damp, or "sweating," as it is called, and placed in the house on racks opposite the other 20 first taken there.

The house used for sulphuring was 6 feet square and 7 feet high. A hole was dug outside, extending under the house, and bricked up, and this is where 24 ounces of brimstone was burned for one hour. Then the door was opened, with the results obtained.

Since that experiment we have not had any colored comb or section honey damaged by the larvæ of the bee-moth. It was a success.

Please gently inform Dr. Miller that it will kill them every time. (Page 695—1901). Say, Doctor, what about those fellows an inch long? My boys say if we would let them grow to be that size our combs would all have a "veil" over them. Wayne Co., N. Y.

Starting and Managing Out-Apiaries.

BY C. P. DADANT.

"Will you please tell me whether you think it will pay me to start an out-apiary about three miles from my home yard? Can I profitably keep 50 colonies in each place? I like the bee-business and have succeeded in wintering my bees for ten winters with a loss of only 3 or 4 colonies, and have now 48 colonies in the cellar. Don't you think it will be a good honey-year? I produce only extracted honey.—T. L., Fayette Co., Iowa.

I believe it will always pay a man to keep bees in a fairly good country, if he likes the business and enjoys it. Even if he hasn't much liking for it, if he has determination and is not afraid of the stings, and is careful and industrious, he can make bee-keeping pay.

When I was a boy I had no liking for bee-culture. The stings proved exceedingly painful, and although my father was always at his bees and spent a goodly portion of his time watching them and overhauling them, I often asserted that I would never be a bee-keeper. But when I became 18 years old, my father happened to take sick with hay-fever during the very best honey-flow that I have ever seen. He asked me to go to the bees. So I fixed myself up and sum-

moned my courage and went to work. What I saw in the apiary during the few hours of that day's work made a bee-keeper of me. The hives were literally running over with honey. Some colonies that had no supers had managed to find their way into the cap and had built snow-white combs running the entire length of that cap and those combs were shining with honey. Hives that had been provided with supers, probably because their colonies were stronger, had those supers full; one or two colonies had begun work under the bottom-board, and two or three swarms, harvested a week or so previously, had their hive-bodies about full and were ready for supers. I went to work with a will, tried to follow instructions as to the proper handling, and found it was pleasant work, after all.

I must remind you, however, that bees are very much more peacable when harvesting large quantities of honey than at other times, so I did not become too much discouraged at first with stings, and after awhile I had become so inoculated that the stings were no longer dreaded.

From that day on there were two bee-keepers in our home, instead of one. But I did not have the patience of investigation that my father had. I was willing, however, to work under his instructions. We had a big crop that year, but the following one was bad. Still we kept on, and within three or four years we had enough bees to make it necessary to start an out-apiary.

Our aim has always been to keep about 80 colonies in one spot. Whenever the number exceeded this quantity, we began colonizing in a new apiary. We usually started with from 20 to 35 colonies in the new place, increasing by artificial or natural swarming as occasion offered. We used a few small hives at first, but gradually changed them into larger ones. Little by little we increased until we became possessors of six apiaries, numbering between 400 and 500 colonies. But we have long since decreased from that number. Other things demanded our attention, and we were compelled to trust the handling of the bees to other hands.

There is an undoubted profit in handling bees on a large scale. We have had several crops that have netted us, all labor paid, from \$2,500 to \$2,800 in honey and wax. The outlay is small, but it takes a determination to attend to the work, at the proper time and in the proper way.

Some men never succeed with bees because they lack the knowledge of some of the most simple requirements, or because they do not employ good judgment. For instance, I have seen a bee-keeper, whom I had thought a practical man, take three combs out of a hive of bees and return them wrong end foremost and improperly placed. That is, in replacing the combs in the hive he put the honey at the front, when it should be at the rear—the place where the bees usually put it so as to defend it against intruders; and he placed a comb of brood on the outside of the cluster, separating it from the others with a comb of honey. It was at a season when the brood should be kept together so as to be cared for easily, the weather being cool. Either this man had no judgment, or he was unaware of the necessary precautions in handling bees. This is seemingly a trifling matter, but it constitutes the difference between the successful apiarist and the unsuccessful one. If you have kept bees for ten years and have succeeded well, I will vouch these small matters have caught your eye, that you know how and when to open your hives, and that when you leave an apiary for a week or more, you can feel reasonably sure that nothing will suffer in your absence unless some accident happens. That is one of the requirements in the establishment of an out-apiary. We cannot be there continually, and at each visit the hives must be left in such shape that we may be confident that there will be no robbing of a weak colony, no starving of a destitute one, nor any lack of room in the supers during a heavy flow.

Of course the bees must be located near some house, so that possible swarms may be harvested. But I see that in one of the best honey-producing sections that I have ever visited (in Colorado), they do not think it necessary to put their bees near a house. The out-apiaries there are most usually placed in the middle of an orchard, or in some corner of a field, or under some cottonwoods, without any attention, except from the owner, who comes to them from time to time.

The production of extracted honey in an out-apiary is a very good method, and I will speak on this matter in some future article.

1903 PROSPECTS AS A HONEY-YEAR.

Do I think this will be a good honey-year? Yes, I do, as much as I may be able to judge. The white clover has

not been so bright and as plentiful as it is now for 12 to 13 years. But, for all that, we can never be sure of a good season ahead of time. The causes that make the nectar to appear in the blossoms are beyond human knowledge thus far. We all have an indistinct idea that it takes warmth, moisture and an atmosphere charged with electricity. But predictions on the weather—the one who says the least is the best prophet, because he runs the least risk of making a mistake.

Hancock Co., Ill.



Don't Let Swarms Get Into a Mix-Up.

BY WM. M'EVROY.

LAST season was the worst one ever known in Ontario for many swarms rushing out at the same time, and all clustering in one great cluster. Where this takes place it uses up much of the bee-keeper's time in putting things to rights, and delays all his other work, which needs very prompt attention, and ends the season with many dollars short in his honey crop.

Last summer I saw the swarms coming out of eleven of my colonies at the same time. I called my help and we very promptly covered ten of them with quilts, and sheets, and left the one that had the most bees out go on and alight, which it did; and before they had half clustered four more colonies started swarming, and these were just as promptly stopped by covering them with quilts which went down to the ground, and hung out about a foot from the hives; and under these quilts the bees rushed out of their hives pell-mell for a few minutes, and then returned back into their hives.

As I keep all my queens' wings clipped, and finding the swarm up the tree not returning, I knew that it must have a young queen with it, and at once hived that swarm, and promptly took the quilts off the 14 colonies so as to let in the field-bees that were coming home hunting for their hives. I then went to work, and divided the bees and made a swarm from each of these 14 colonies, which I had prevented from swarming, and secured a good yield of honey. I hit on this method over 25 years ago, and have practiced it every since, and it has been worth many dollars to me.

Ontario, Canada.

Association Notes.

The Foul Brood Bill in Illinois.

Reports from Springfield are very encouraging. Pres. Smith and Sec. Stone, of the Illinois State Bee-Keepers' Association, are on the ground, and go to see some of the lawmakers every week or two. If the bill becomes a law we can thank the few bee-keepers who have personally labored with their representatives in the Legislature.

As we understand the situation now, the Legislature of Illinois will adjourn about May 1, and between now and then we will probably learn our fate. The most serious danger that threatens us is that our bill will be smothered by a multitude of other bills in the rush of the last days of the session. But we have done all we could. The fact that the two Associations have joined hands in efforts for the bill, may have enough weight with the Legislature to cause favorable action.

Let me sound a note of warning: Don't any of you break your hearts if we fail. This may be only the opening wedge to break into a success in the next meeting of the Legislature, in 1905. Then we can go at them with an added force from our experience of the present.

I wish to say right here that less than a dozen have taken enough interest to subscribe money in aid of our bill. Possibly less than 100, all told, have written to the members of the Legislature and given any thought to the matter. And there are 35,000 bee-keepers in Illinois! If we fail, can you guess why?

HERMAN F. MOORE,

Chairman Foul Brood Committee,
Chicago-Northwestern Bee-Keepers' Association.

Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

The Spring and the Bees.

This has been rather an unusual spring. March 7 we took out some 20 colonies of bees, let them have a good flight, and carried them back into the cellar again. March 13, we took out 20 colonies, and left them out. March 19, the thermometer stood at 75 degrees, and we took all the rest out. Really, the weather was so warm that they might just as well have been taken out two weeks before, although we have had two or three snow-storms since.

One day the thermometer stood at 76, and the bees were having a lovely time bringing in such large loads of pollen, and the next day the ground was covered with snow.

Taking it all in all, I am glad we took them out when we did, although it might have been better to have carried the weaker ones back to the cellar during the storms. The time for bringing the bees out of the cellar, as well as the matter of returning, is rather a troublesome question to decide. Who can tell just what is best?

Our bees wintered finely, and came out in good condition as far as we can judge from outside appearances, considering they were put into the cellar under very adverse circumstances. On account of having a furnace put in we were obliged to leave the bees out until December. They were carried in the 8th and 9th, after the thermometer stood at 8 degrees below zero.

We have not done any overhauling yet, because for a month past everything else has been set aside for the tabernacle meetings, led by Rev. W. A. Sunday, with audiences of 800 to 1200, resulting in more than 200 conversions.

April 2 I picked a dandelion in blossom. Pretty early for Illinois; but everything is early this year.

The Chayote as a Honey-Plant.

Have any of our bee-keepers had experience with the chayote? Not the coyote belonging to the genus canis, whose name is so similar to that of the tropical plant, but the chayote, *Sechium edule*, the vegetable pear.

However, it is on account of the chayote's value as a bee-plant, and not in regard to the edible qualities of its fruit that I am chiefly interested. But as to any personal knowledge concerning this Mexican vegetable, I have that yet to learn, though if all goes well my experience will not be afar off, inasmuch as I have planted the seed early this month, keeping, of course, the buried treasure indoors, until all danger of frost is over, before transplanting.

Although a plant of the tropics, the chayote can be grown in cool latitudes, it is said, therefore I hope it will take kindly to Indiana soil. The instructions state that it requires a somewhat sheltered situation, and something to climb upon; also, that it is the universal practice to plant the entire fruit instead of extracting the seed, and planting it alone.

The United States Department of Agriculture, Division of Botany, published a Bulletin by O. F. Cook, concerning the chayote. It contains a number of plates, and is a beautiful and interesting pamphlet, and, as far as known, this paper is "the first adequate account of the nature, culture, and economic value of this promising member of the squash family."

Regarding its value as a bee-plant, the Bulletin states: "As in other vegetables of the squash family, the stamens and pistils are in separate flowers, pollination taking place through the agency of insects. To attract these the flowers of both kinds, but especially the pistillate, yield abundant nectar, which is secreted in ten glands, two at the base of each of the lobes of the corolla. In most of the countries into which it has been introduced bee-keeping has not been a regular industry, and the value of the chayote as a source of honey has not been noticed, but the reports of experimenters in New South Wales contain very emphatic statements on the subject:

"When the plant is in flower I have noticed that the vines were swarming with bees, and as flowers are scarce

in the autumn the plant will no doubt be valuable as a honey-producer."

"It has long been known that the flowers of this family are rich in honey, but from the standpoint of the bee-keeper they have been considered of little importance because seldom accessible in sufficient amount, though in the United States fields are recognized as good bee-pastures. The chayote seems to make up by numbers what the flowers lack in size, so that the yield of honey may be larger than in related plants. In addition to this there is the fact that *Secchium* is a perennial bloomer in the tropics, and in the subtropical regions has a very long season."

Wayne Co., Ind.

KATE V. AUSTIN.

* The Afterthought. *

The "Old Reliable" seen through New and Unreliable Glasses.
By E. E. HASTY, Sta. B Rural, Toledo, O.

SELLING LIGHT-WEIGHT CASES AND SECTIONS OF HONEY.

The Chicago Convention seemed to have quite a discussion about the honesty of selling light-weight sections and cases. All right. Let there be more such discussions. In the long run daylight is apt to have a wholesome effect upon naughty deeds. Here's a chunk of wisdom to help things along: Some practices are essentially and incurably wrong. Some practices not necessarily dishonest are objectionable because they lend themselves to dishonesty so easily. The good man may yield to the latter because he has to; but at the former kind the good man stops off. If he is found doing them his title of "good man" gets a bad dent in it. The paternal desire to make other people be honest as well as ourselves is good within certain bounds, but has been known to be carried too far. Page 164.

KINKS IN FORMING NUCLEI.

Two good items not universally known on forming nuclei: Make them toward the close of several days of bad weather, and the bees will not go home nearly so badly. Mixed bees from several colonies do not go home so badly as is the case when the bees are all from one colony. The last item is something of a curiosity, and is worthy of study to find out why. Doolittle, page 165.

A POETICAL MIX-UP ABOUT HIVES.

When Mr. Aikin gets into the thick of the fight defending his new hive he slumps into poetry and says—

"Mr. Doolittle kicks
About a few sticks."

Yes, and there's the Styx, across which our bees might be landed by a few ill-fated kicks—the pranks of new inventors—"if we don't watch out." I fear Mr. Aikin, in his defense, ignored the weakest point—brood-nest pushed across the sticks only a few days ago, and lo, here comes a long, cold storm with winds. I rather fear the brood-nest will recross the sticks, and the exposed young brood below cross the Styx. Page 166. (Please don't allow yourself to lose that concluding rhyme.)

KINGS NOT ENCOURAGED IN THIS "LOCALITY."

Name of the king of Finland wanted, eh? And Dr. Miller hadn't even the grace to say, "I don't know." Knew all about the king of Finland, of course, but couldn't let a child in the apicultural kindergarten be wandering from the subject so. Page 168.

FORMALIN VAPOR FOR FOUL BROOD.

It's not a thing to rush into in a headlong manner, but up to date the power of formalin vapor to extinguish all germs of foul-brood seems one of the most promising new things. Promises to be better than destruction of the combs at any time, and immensely better on the numerous occasions when bees are disinclined to build on account of poor honey-flow. Page 180.

FEEDING SOUR HONEY TO BEES.

As to the problem of working over soured honey, it seems to be granted by all that it may be fed in warm weather as a supply for hungry brood. Possible, of course, but may we not have been too hasty in assuming that it

was profitable? If a man should stand up and call that a very unprofitable thing to do, how could we refute him? When damaged honey is fed to bees with the idea of making them renovate it and store it as surplus, I think this is the way they proceed:

They take it into their stomachs, fly around with it, eject the greater portion as urine, and finally store the lesser portion as sound, or nearly sound honey. (Reason why so few find "feeding back" profitable.) Now is it not probable that they do this same thing in breeding-time before any of it actually gets to the brood? And may they not wear themselves out in the process more than the amount of food saved will pay for? Put it, if you please, at the rate of ten old bees worn out for nine young ones reared. Bees in mid spring are precious things, and we want to figure close on them.

When we heat damaged honey some of the badness is evaporated out, or foamed out; but the acids stay in—and so I fear do most of those things of mean taste which the chemist has not got around to name yet. Good honey has a remarkable power to disguise bad flavors. So this is what takes place—I guess—in the cooking down; we get rid of the alcohols and mucilages and part of the water. Then the thickened honey—that part of it not damaged—disguises to some extent the other bad things. Not very satisfactory.

Honey and virtue and beautiful snow

Better not soil in the first place, you know.

Page 181.

Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

[The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.]

Questions by a Beginner.

1. How can I put a swarm of bees into a hive with all those frames in it? If I would move the frames over while dumping the bees in, they would come out before I could put the frames back and cover the hive. My hives are chaff hives.
2. How does the queen-cell look when the bees are going to swarm? Does it look any different from the other cells at any time?
3. Will the scent of sulphur hurt the bees? Will they stay in the hive?
4. Where is the queen when the bees cluster in a bunch on a limb? Where does the queen stay in a hive?
5. How can I tell when other bees are robbing mine? How can I stop them?
6. Where do I clip the queen's wings? Will a pair of sharp shears do it?
7. When is the best time to put on sections, before the bees swarm, or when they first start out in the spring?

PENNSYLVANIA.

ANSWERS.—1. If a swarm is gently dumped right on top of the frames the bees will go down of themselves without moving the frames. But it may be better to put the swarm at the entrance of the hive and let them run in.

2. A sealed queen-cell looks like a peanut at all times.

3. It will do no harm.

4. The queen may be anywhere in the bunch on the limb, and in a hive generally on or near the brood.

5. Catch a bee as it is leaving the hive, crack it open, and if it has honey in its sac it's a robber belonging to you or some one else. One way to stop robbing, if you can stop it at all, is to pile a lot of hay or straw at the entrance and sides clear to the top of the hive, and keep it thoroughly wet.

6. Yes, almost any scissors will do—sheep-shears would be too large—and you may cut off half or more of the wings on one side.

7. Put on sections when the chief honey-flow begins—in your region about as soon as you see white clover in bloom.

How to Detect Foul Brood.

I have been reading the American Bee Journal for about three months carefully, and Prof. Cook's book, and have been noticing particularly what is said about foul brood. I have 9 colonies of bees; I bought 4 colonies in the winter, and have been suspicious of one colony for some time, for fear they have foul brood, on account of the different odor in the hives. They fly out and work as strong as almost any of the rest. What is the best way to know whether they have foul brood or not? How long will a colony live after it gets foul

brood? and how long will it take others to become infected, sitting side by side of them. What shall I do with them if they have it? Please explain as plainly as possible, as I am beginner.

MISSOURI.

ANSWER.—This letter illustrates what was said in this journal editorially not very long ago, when it was urged that every one should study up carefully in advance the subject of foul brood. You will find in your text-book answers to most of your questions more full than it is possible to give in this department.

Look on page 475 in Cook's "Bee-Keeper's Guide," and after reading the instruction there about the holes in the cappings and the springing back of the rotten larvæ you can make a pretty safe guess as to whether you have foul brood or not; whereas I can't tell a thing about it from the information you have given.

A colony may live a few months or several years after it has foul brood, and it will take the other colonies as long to contract the disease as it will take them to get the least drop of honey from the diseased colony. You will do well to send 25 cents to the office of the American Bee Journal to get a special pamphlet on foul brood.

Varieties of Bees—Feeding.

1. It would be of interest to see in the American Bee Journal what an Italian bee is, where the Carniolans, Goldens, Moore's and Holy Lands first originated, and what the different natures of each strain of bees are.

2. To stimulate early brood-rearing, is it necessary to feed every day, or would one good feeding a week be sufficient, where feeding on the bottom-board inside of the hive?

IOWA.

ANSWERS.—1. Yes, a few of the readers of these pages would be interested to read all about the different races of bees, but thousands of them would say, "We don't want space taken up with that, for we all have it in our text-books." This department is only supplementary to the text-books, and not intended to take their place.

2. If flowers are not yielding and weather is warm, the natural harvest will be more nearly imitated by a little every day, or every other day, than by one feed a week.

Feeding Sugar Tainted with Kerosine.

I put 25 colonies in my cellar last fall, which came out all right. I have 100 pounds of sugar that I would like to feed them, but it has had kerosine-oil spilled on it. What can I do with it?

MASSACHUSETTS.

ANSWER.—A very little oil will likely do no harm. If much, mix some sugar with water, half and half, let settle and skim off the oil; if still too strong for the bees to take, I don't know of any remedy.

Queenless Bees—Wiring Foundation.

1. I have 2 colonies of bees that are queenless. If I should give them a frame of brood and eggs from another colony would they rear themselves a queen?

2. Last year I used full sheets of foundation in brood-frames, and had a good deal of trouble with the foundation breaking down when the bees got on it. I had it wired crosswise of the frames, too. It seems to buckle above the wires. What would be the objection to wiring the frames up and down, then the foundation would not buckle, would it?

KANSAS.

ANSWERS.—1. Yes, but it is not likely that the queen would be the very best, and probably you will do better to unite with one of your weaker colonies that has a good queen.

2. I wonder if you had the foundation fastened to the top-bar. Yes, I have had hundreds of frames wired vertically, and no buckling, although nowadays horizontal wiring is generally preferred. For my own use I prefer vertical splints.

Transferring—Beginner's Questions.

1. I bought 7 colonies of bees late last summer, and they were in bad condition. The hives are old and rotten, and the comb is old and black. The first warm days this spring they came out and all seemed to be at work, but later all but one colony seemed to be sluggish and lazy. Would it be best to put two colonies in one hive?

2. Would I better transfer them to new hives? If so, when is the best time? and when shall I proceed?

3. Will they always work when they have a queen? and will they ever work when they have none? Some of my colonies are not at work yet; when I open the hive there seems to be lots of bees.

4. I notice in the Journal reference is made to a text-book. Where can I get one? I know I am green, but I will learn.

5. My bees are alive with ants, and they also have moths. What would you advise?

TENNESSEE.

ANSWERS.—1. As you say later on that there are plenty of bees in the hives, it is hardly advisable to unite. Possibly there is nothing for them to do—no flowers to be had.

2. It would be better to have new hives than rotten ones, but old, black combs are as good as new ones. If the hives are frame hives, and the frames are of the right kind, merely lift the frames into the new hive. Otherwise transfer as directed in your text-book. You can

transfer in fruit-bloom; or perhaps it will be better to wait till the colony swarms, hive the swarm in a new hive, and 21 days later break up the old hive.

3. When there is nothing for them to work on they may lie idle; if pasturage is plenty they will work, queen or no queen, but a queenless colony seems little inclined to hustle like the others.

4. Now you're a man after my own heart to ask a question like that. Between you and me, I feel badly many a time when some beginner asks me a question and I'd like to tell him all about it, but it something that's explained more fully in the text-books than it can possibly be done in this limited department, and if I should answer it here some new subscriber would want the same question answered inside of three months, and I'd have to keep answering over and over questions that none of the other readers would care anything about. So I'm glad you're after a text-book. There are several of them, and you can get one from any publisher of a bee-paper or from any supply dealer. Perhaps it would be just as convenient for you to get one from George W. York & Co., 144 E. Erie St., Chicago, Ill., publishers of this journal. I'll ask the editor to tell more particularly either here or elsewhere, about the text-books and their prices. But let me caution you about one thing: He publishes the book "Forty Years Among the Bees," and you may think from what he says that you ought to buy that. Don't you do it. At least not for your first book. One of the others will be better, and then it will be all right for you to get "Forty Years" as a second book. [See the book list on page 239.—EDITOR.]

5. Strong colonies will clean them out, and Italians are much better than blacks.

Painting Hives with Bees in Them.

Would the odor of fresh paint affect or anger the bees if I painted the hives while the bees are in them?

IOWA.

ANSWER.—No, unless you jar the hives. A few bees might stick to the paint.

Questions on Queen-Rearing.

As I wish to rear one hundred or more queens this season for myself, and as I see there is a difference in thoughts presented by such men as G. M. Doolittle, E. Gallup, Henry Alley and others, I feel that a few questions will be appreciated by those who are interested in the subject of rearing queens for themselves—queens that will be the best that it is possible to rear, not having any "missing link" whatever in any line.

1. If the only way to rear extra-good queens is by natural swarming, and by natural superseding, then has not man reached a limit beyond which no further progress is possible?

2. Almost all seem to agree that there are three things necessary in order to rear long-lived, prolific queens whose workers are sturdy and long-lived. These three things seem to be, plenty of animal heat or magnetism; plenty of royal jelly; and to be started out and kept laying continuously and to the full capacity during the first season. It is a well known fact that swarms usually issue on the sealing of the first queen-cell, thus taking away one-half or more of the bees in the hive, and would not the queen hatched out, in case the weather became cool, be lacking the proper amount of heat required to produce a good queen? And especially so if the cells were on the end of the frame, or at the bottom, as they usually are?

3. Does any one know that the royal jelly is any different when supplied at natural swarming time, and that supplied at other times?

4. Does the queen lay a different egg at natural-swarming time than she does at any other time?

5. Does any one know that the egg she lays in an embryo queen-cell is any different from any other worker-egg?

6. Is the umbilical cord attached to the cell during the whole life of the larva, or is it thrown out after the larva has partly developed? Has any one ever found such a cord for the first three days after hatching?

7. Is there not considerable in keeping the queen laying to her full capacity during the first of her laying season? Is that not one of the reasons why so many are not prolific when kept in a nucleus for some time after commencing to lay?

WISCONSIN.

ANSWERS.—1. I don't know just what chance there is for further progress, but I believe, with a good many others, that just as good queens can be reared outside of natural swarming and superseding.

2. I suppose all are agreed as to the need of plenty of heat and food, but I think many believe it necessary to have a queen laying continuously to her full capacity the first season. Usually the weather is so hot at swarming-time that there is little trouble about heat, but some time a cool time may come. Sometimes you will find a dead larva or pupa in one of the lowest cells, but there are always enough cells in the warm parts of the hive.

3. I think it is known to be the same.

4. No.

5. I think it is known to be the same.

6. I don't believe there is any umbilical cord either before, on or after the first three days.

7. I don't know, but I doubt the importance of it.

Queenie Jeanette is the title of a pretty song in sheet music size, written by J. C. Wallenmeyer, a musical bee-keeper. The regular price is 40 cents, but to close out the copies we have left, we will mail them at 20 cents each, as long as they last.

What Yon Yonson Thinks

Vel, my goodness, ay feel kine of sorry for Peter Peterson, coz he is struck wid prosperity plenty bad. Mebbly it's cause he got too much confidence. He bean vork for Ole Peterson for 40 days, an he git 40 dollar, an he haven plenty money, an now he tank he las just som smart somnobody, an he just lurn to talk merican like nutting. It coms yust so natural for Peter to lurn merican som, to ete cabbage. My goodness, Peter say ven he only been in Unity State for tree monts he could talk merican in tree different langvige, and he tank he iss a dandy feller. He say to Ole Peterson, he don't goan to milk his cows any more, so if Ole vont dom cows milkt he can yust do it self. Vel, Ole he don't lak das, so he say, "My goodness, Peter," he say, "ef you don't goan to do da vork, den ay goan to turn you off." But Peter he don't care; he say if Ole Peterson turn him off den he goan to quvit. An he don't goan to vork for him any more. Dat's vot Peter sed.

An he say he vont for Yon Yonson to lurn him how to keep bees. Vel, Peter iss som purty smart feller, so mebbly ay hire Peter to help drive da bees das summer. Peter vil be youst da feller for brush-svarming, only ay iss kine of frade dat mebbly eider da bees or Peter is liable to abscond; but if ay can keep Peter an' da bees togedder long nuff den if Peter don't ketch on, mebbly da bees ketch on to Peter. An Peter is good for bout 500 revolutions per minit, in case oxident.

Peter he say he vont to keep von svarm on share, an he goant to sho me how to git lots of hunny. "Vel," ay say, "if you promis not to hide behine da potatis box agin, den you can have von svarm on share. Ay got von colony of kine of black bees, dom is kine of kross, so mebbly you git more dan your share; but ay vill give dom new queen so dom soon vil bee all clover bees," ay say, "an dom vill all have long tungs."

Vel, Peter say he don't kare vot kine of tungs dom got, or if dom is tung-tied, or even got glas eyes, but he don't vont dom shal hav any longer stings dan iss absolutely nessesary.

Now, Peter, he don't vas married yet, but he got awful nice girl vat live along da telephone line. Ay tel Peter if he don't votch out he soon goan to be ole batch, an dom say ole batchlers don't live so long som married mans. Vel, Peter he say he don't believe da married mans live any longer, but mebbly it seems lote longer, he say, cause dom have more trouble.

But Peter he tank it is fun to call up his girl on da telephone an kine of mak love. New, it iss gainst da rules to du any sparken on da telephone, cause you know da souns kine of silly; but ven da boys along da line listen to Peter, dom has more fun don Peter, so ve don't vas enforce da rules on Peter yet.

Now, Peter's girl, Christina, she live on different line, so he hav to call up Central. Vel, da boys along da line dom kine of put up job on Peter, an ven Peter call up Central an say, "Give me Christena, please," den Central girl she ring up da hotel to da nigger cook, so purty soon she say, "Hello, sah!" "Hello, Christena!" Peter say, "How is you feeling das evening?" "Oh, fine, fine," she say. "Is yo Sambo?" she say. "No, it don't vas any rainbow in vinter," Peter say, "but mebbly ve goan to hav som more snow," he say, "an mebbly ay goan to com roun tomorrow nite an' tak you slay ride, an ve go to church," he say.

"Bles yo dea' hart!" she say. "Yo is de bestes nigger in town." "My goodness," Peter say, "ay don't vas any nager. Seems to me your voice don't vas soun natural," Peter say; "you musta hav bad cole, ay hope you don't vas sick."

"Hoo is yo?" she say. "Is you Sammy?" "No, ay don't vas Santa," Peter say. "It don't vas time to hang up yours stocken now," he say. "Santa Claus is vay up in Alaska now," Peter say. "Do ay talk lak Santa Claus?" he say. "Santa don't vas got his phone connected yet," Peter say, "but ven

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he get ketched up vid da times meebly he vill conet, den ay tank he goan to have plenty to do."

Den somebody begin to laff, an von boy he ask Peter if he kno dat he vas talken to da nigger cook in town. An' den Peter begin to ketch on, an he ring off. An' now Peter don't bodder Central to ring up hiss girl any more, an' he say he tank da telephone is plenty good ting, but it don't vas perfect yet.

YON YONSON.

FROM MANY FIELDS

Bees Wintered Well.

The bees have wintered well. I have four yards. The season is much farther advanced than usual. White clover appears to be in abundance, and dandelions are opening, but the cool winds prevent bees from working; in fact, I think we are losing quite a few bees from their eagerness to work. They fly out when too cool, and become chilled before they can return to the hive.

H. G. QUIRIN.

Lucas Co., Ohio, April 9.

Prospects Good.

Bees are in the best shape this spring that I ever had them at this time of the year. I have some booming stock to breed from. Prospects are good for a good year.

D. J. BLOCHER.

Stephenson Co., Ill., April 13.

Results of the Season of 1902.

My last year's report is, (spring of 1902), 45 colonies, increased to 59 by division the latter part of August, and got 250 pounds of comb honey and 3300 pounds of extracted. I sold the most of it at home for 15 cents per pound for the comb and 9 cents per pound for the extracted. I lost 2 colonies in cellar-wintering, and the remaining 57 colonies are in good condition. I took them out of the cellar March 17, and March 18 they carried in natural pollen; but, besides, I used about 60 pounds of rye-flour which they carried in.

The outlook for the coming honey crop is fair, on account of almost all the fields that are not plowed being covered with white clover. I had no natural swarms last year.

Dodge Co., Wis., April 14. WM. SEITZ.

Bees Starving.

Bees are starving all over this part of the country. Many will spring dwindle because of no breeding last fall. I don't know my loss yet, but it will not be more than usual.

JOHN C. STEWART.

Nodaway Co., Mo., April 14.

Experience with Bees.

I have received the American Bee Journal regularly since I subscribed for it, and I am well pleased with it, as well as with the book which contains so much bee-information.

I commenced keeping bees about five years ago, and in 1901 I, with most other bee-keepers, met with almost an entire loss; the bees seeming to have had the dysentery; they died leaving plenty of honey, which would have wintered them. When we came to examine the honey we found it strong and watery, unfit for use in any way.

In 1902 I bought 5 colonies with which to start a new apiary. In November I placed them in the cellar for the winter, all well provided with winter stores, and wintered very nicely.

The first part of last season (1902) being a wet one the bees scarcely made enough to keep them, but cast some strong swarms. The season closed with a good flow of beautiful honey. One large swarm was hived June 26, which filled the lower chamber and 48 one-pound sections of surplus. I sell all my comb honey at 18 to 20 cents per pound.

I have Italian bees, and use the Langstroth hives almost entirely. They were well provided for the long, cold winter, and have thus far done nicely, and all are in a healthy condition. In November I packed the bees in a shed well banked and darkened; heretofore I have wintered them in the cellar with nearly as good results, only I find my cellar too damp at times, causing some colonies to sweat and mold.

Although my apiary is not very large there is much room for it to grow. There are not many bees kept near where mine are, the nearest apiary consisting of about 50 colonies, being three miles southwest of here.

I think I will let my bees take a flight next week if the weather is suitable.

I consider it a great pleasure to take care of my bees. I study every article pertaining to bee-culture; still we must work and experiment with them ourselves, as there is nothing in any line of business like real experience. There is a great deal in keeping an apiary neat and clean, keeping the hives well painted and well arranged in some clean, shady place.

OREN S. REED.

Fayette Co., Iowa, March 21.

Two Years of Failure—Outlook Good.

The last two years were failures here, but the outlook is good for this season. There is lots of white clover. The weather is cool and rainy. Plums are in bloom. W. D. HURT.

Cass Co., Mo., April 9.

Quite a Loss in Wintering.

There is quite a loss in bees here this winter. We had any amount of honey-dew last fall, and a severely cold winter. I think these were the cause of the loss. Prospects are fair for a good honey crop the coming season.

G. W. VANGUNDY.

Uinta Co., Utah, March 23.

Hand Crushed and Stung.

While moving part of my bees to an out-yard I got my hand smashed, and at least 100 stings about my head and face. A defective bridge was the cause of the trouble. My hand is very painful, but no bad results from the stings.

Bees are booming to-day, the weather is fine, and prospects flattering.

Ellis Co., Tex., March 8. LON ROSSON.

Bees Coming Out Fine.

Bees are coming out fine this spring, and the indications are that they will find plenty of nectar this season. The first pollen came in on St. Patrick's Day—March 17.

F. KINGSLEY.

Thayer Co., Nebr., March 31.

Unfinished Sections.

In reply to Mr. Bevins, on page 235, I would say that I did not intend that method for fall feeding, as I scarcely ever feed in the fall; I prefer doubling for strength, and also using the best-filled combs to fill up with.

Now I am nearing the 72 mark in age, and have owned and handled bees since I was 18 years old, and believe the bees I own now are similar in character to all others, and I could never get them to carry down honey as you, Mr. Bevins, recommend. It has been my experience that however strong they were in the fall some of them come out both short in stores and weak in numbers. These are the ones that need close attention, and the ones I feed with my unfinished sections, and it is the only method I have ever found successful. You say that you want the bees to have access to the honey in the sections at all times. If you do, why do you place anything between them? Why not set your super on as usual? With me the cloth did not work at all, but with the board I have no trouble.

As to the use of the firmer chisel I think it by far the handiest tool in the business. No matter if it does mangle, you will have new drawings which will surely be white and new. Doubtless you will smile again on reading

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BATAVIA, ILL., Aug. 21, 1901.

Dear Sir:—I thought I would let you know as to results of the nucleus sent me. They were placed in 10-frame hives and now they are in fine condition. From one I removed 24 pounds of honey and had to give 6 of them more room, as they were hanging out. They have more than reached my expectations.

Yours respectfully, E. K. MEREDITH.

DAVENPORT, IOWA, Dec. 31, 1901.

Your queens are fully up to standard. The honey queen that you sent my brother takes the lead. She had a rousing colony when put up for winter. The golden can be handled without smoke or veil. Very truly yours,

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High Carbon Coiled Spring Steel Wire
FENCE
INDIANA STEEL & WIRE CO.
BOX 629, MUNCIE, INDIANA.
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Having had 5 years' experience in

Rearing Queens

and having a breeding queen that is two years old, whose bees are so gentle they can be handled most of the time without smoke, besides being the greatest honey-gatherers I ever saw, I have decided to offer her daughters during the season of 1903 at the following prices. Terms cash:

Reared by Doolittle Method.	
Untested Queen, 75c; 6 for.....	\$4.00
Tested Queen, \$1.00; 6 for.....	5.00
Natural Swarming and Supersedure.	
Untested Queen, \$1.25; 6 for.....	6.00
Tested Queen, \$1.75; 6 for.....	9.00

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The Nickel Plate Road

is the short line to the East and the service equal to the best. You will save time and money by traveling over this line. It has three through daily express trains, with through vestibuled sleeping-cars, and American Club Meals, ranging in price from 35c. to \$1.00, are served in Nickel Plate dining-cars; also a la carte service. Try a trip over the Nickel Plate Road, and you will find the service equal to any between Chicago and the East.

Chicago depot: Harrison St. and Fifth Ave. City Ticket Offices 111 Adams St. and Auditorium Annex. John Y. Calahan, General Agent, 113 Adams St., Room 298, Chicago. 'Phone Central 2057. 1—17A5t

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this, for no doubt you are one of these old, worthy veterans, and think there is no way like your own. That is all right—I am bordering heavily on that line.

You will plainly see the reason why I speak of the circulation through the hive if feeding in the spring, as the weather is not to be depended upon at all times in regard to heat and cold. Some have said honey in unfinished sections would candy. I have never had any trouble that way, and even if I did I would scrape off down to the septum, and that would relieve the matter.

Now, Mr. Bevins, we will have no quarrel, but if I were near you I would refer you to 2d Epistle of John, 1st chapter, 12th verse.

A. Y. BALDWIN.

Dekalb Co., Ill., April 13.

Wintered All Right.

My bees have wintered all right, and have clustered out on the hives some.

I look for a good yield of honey. My bees swarm very little. I have not had a natural swarm for four years. I have kept bees for 40 years, and think I have learned something about bee-keeping, but I do not know it all yet. I have no increase in colonies.

HENRY BEST.

Carroll Co., Ohio, April 9.

Using Vells—Bees in Germany.

Over seven years ago I started to keep bees, and at that time looked upon myself as an expert bee-keeper, but I found out that I had more to learn than I could possibly crowd into my head in one year. It is past seven years, and I do not know it all yet.

One thing I found out, and that is, that I could hardly follow J. M. Young's remarks about bee-veils, on page 215. I am for a bee-veil, and a good one at that. I am not a particle afraid of bees, but I don't care a bit what some one else thinks when they see me go to work with them with my face protected with a good veil. Please remember I had some experience in the line of walking among the hives without face protection. I had a three months' trial getting one of my eyes cured which was affected with the sting of a bee.

On page 216 I read something about bee-keeping in Germany; as Mr. Hasty expected, locality had something to say. It is a matter of fact that in the southern part of Germany they use houses, with few exceptions, for their bees; in the northern States they use the straw hive; and in later years the improved hives, and change places with the bees according to the flowers in the different localities.

Now, Mr. York, I can not help getting a

FROM BUGGY MAKER

We make all our buggies and sell to you direct, giving you all profits usually paid to wholesaler and retailer. We originated the plan of shipping buggies on 30 days' free trial.

Get Our New Buggy Book.
Write for it today. KALAMAZOO CARRIAGE & HARNESS MFG. CO., 161 Washtenaw St. Kalamazoo, Mich.

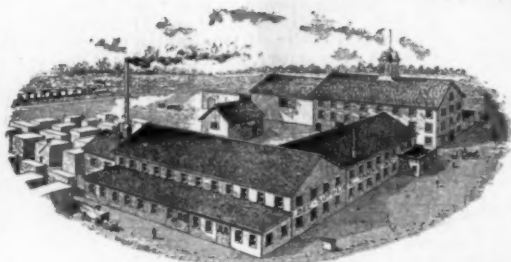
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Choice Tested Queens from the finest Red Clover Stock in the U.-S. In order to introduce this SUPERIOR stock I am going to offer a limited number of 2-frame Nuclei with a fine Tested Queen for \$2.00 each; Queen alone, \$1.00; Selected Tested, \$1.50 each; Breeders, \$3.00 each; Untested, from same stock, 75 cts. each, or \$6.50 per doz. Discounts on 50 and 100 at a time. My Queens are bred by the best known methods, and I challenge the world to produce finer Queens or stock. Safe arrival and reasonable satisfaction. Address,

W. J. FOREHAND, Ft. Deposit, Ala.
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Red Oak, Iowa.

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J. W. Bittenbender,
Knoxville, Iowa.

The Danz. Hive— The Comb Honey Hive.

We sell it. We are authorized jobbing agents
for THE A. I. ROOT CO., for Michigan. Send us
a list of the goods you want for this season, and
let us quote you prices. Beeswax wanted. Send
for catalog. **H. M. HUNT & SON,**
10A17t **BELL BRANCH, MICH.**

Tennessee Queens.



Daughters of Select Imported
Italian, Select long-tongued
(Moore's), and Select, Straight
5-band Queens. Bred 3/4 miles
apart, and mated to select
drones. No bees owned with-
in 2 1/4 miles; none impure
within 3, and but few within
5 miles. No disease. 30 years'
experience. **WARRANTED**
QUEENS, 75 cents each;
TESTED, \$1.50 each. Dis-
count on large orders.

Contracts with dealers a spe-
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\$12.80 For 200 Egg INCUBATOR

Perfect in construction and
action. Hatches every fertile
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We sell

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Poultry Supplies and Hardware Im-
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MR. ALLEY:

I have a queen received from you in 1900. Her
bees are the best honey-gatherers of an apiary
of 65 colonies in which are queens from different
breeders—natural queens, as Dr. Gallup calls
them. The Adel queen is the best of the lot.

C. J. OLDENBERG.

Price-List now ready. **H. ALLEY,**
16A44t **Wenham, Mass.**



No Fence Company

beats our prices on the same quality of fence,
because they never make our quality.

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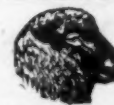
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Plants, Bee-Fixtures. Send for circular.

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and easy to make
if you work for us. We will start you in
business and furnish the capital. Work
light and easy. Send 10 cents for full
line of samples and particulars.
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Solid through daily express trains be-
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and Boston. American Club Meals,
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BEESWAX. Must be nice. Best prices paid,
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15A17t

Please mention the Bee Journal.

100 Mounted Queen-Cells and one sample of the Stanley Cell- Protector or Introducing Cage

for 70 cents, postpaid.

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ARTHUR STANLEY, DIXON, ILL.

little "poke" in at you and your "York's
Honey." I had, last season, an average of 55
pounds of No. 1 comb honey, sold it at 12 1/2
and 15 cents a pound, and every section had
my name stamped on it. Please do not get
mad, but I would not have left it off even if I
had to take the honey back, if I sold it to you.

I have 18 colonies of bees in fine shape on
the summer stands. The weather is warm,
and the bees are busy carrying in pollen and
building up for the expected clover honey-
flow.

I hope every bee-keeper in this land will
find himself well paid, at the end of this com-
ing season, for all his trouble and stings.

Lewis Co., Mo., April 4. Jos. KELLER.

How Far Bees Go for Honey.

Allow me, for the many bits of information
I derive from the American Bee Journal, to
give in return my little item of knowledge.

One writer says he has noticed that bees do
not go more than a mile from the hive for
honey. I am in a position to be quite sure of
what I say—I am the only one with bees in
this section of British Columbia. A man 13
miles away got some bees last year; previous
to that time there were no bees within 40
miles of me. Before the 13-mile neighbor got
his bees mine were the only ones in the coun-
try, and they were seen on gooseberries in a
garden 3 miles away, or more than 2 miles as
the crow flies, or rather, as the bee flies.
They were also seen in another direction
about 3 miles away, as the bee flies. In each
case, also, they had to fly over primeval bush
to get to these gardens; so I am sure they go
more than a mile, or even 2 miles in search of
honey.

My 5 colonies appear to be in good shape,
but as soon as I have peeped into the hives I
will write more fully. **H. BEER.**

British Columbia, March 30.

Good Prospects for Clover.

I got my last 8 colonies out yesterday, and
they all seem to be in good condition. I lost
one colony out of 219, and that was queenless;
all the rest are alive at this time.

We have the best prospects for white clover
in 10 years. **N. STAININGER.**

Cedar Co., Iowa, April 9.

Some Wintered Well, Others with Loss.

My bees came out of winter quarters very
strong—I have never seen them as strong in
the spring during the long time I have kept
bees. I hope for a good year. Lots of bees
around here starved during the winter, and
more will follow this spring. Those that
were cared for in the fall and had been fed are
in good shape. **HERMAN LUEDLOFF.**

Carver Co., Minn., April 7.

Results of Wintering.

EDITOR YORK:—I must admit that you
editors are generally a blessing, nevertheless
you are at times a bother, which the follow-
ing will show:

In the January number of the Rocky Moun-
tain Bee Journal, Editor Morehouse called me
a terrible name, and tells how many colonies
of bees I am to commence the honey season
with in 1903; and all this without my knowl-
edge or consent, else I should have insisted
on his leaving out the estimate as to how
many colonies I would have in the spring.
And now you tell the public that it's assum-
ing a great deal on the part of Mr. Gill to tell
how many he will have left in the spring, and
this without giving me any chance to explain.
Well, as Yon Yonson would say, "You both
bean awful nice fellers," so I am going to let
you off this time.

To help Mr. Morehouse out a little in his
predictions I will say that I have been quite
fortunate in wintering 800 of the best col-
onies, the loss having been only 5 percent.
But of 400 that were in poor condition last
fall the loss was about 30 percent. Bees that
were in prime condition have wintered as
well as usual the past severe winter. But as
there was a greater percent of bees in poor

condition last fall than usual, I think, on the whole, that the loss has been greater than for a number of years in Colorado.

The outlook for what we have is certainly very favorable, and now if we are faithful unto a few things we may be made ruler over many.

M. A. GILL.
Boulder Co., Colo., March 30.

CONVENTION NOTICES.

Illinois.—The spring meeting of the eastern part of the Northern Illinois Bee-Keepers' Association will be held at the residence of James Taylor, in Harlem, Winnebago Co., Ill., on Tuesday, May 19, 1903. All interested in bees are cordially invited to attend.

B. KENNEDY, Sec.

Minnesota.—The Fillmore County Bee-Keepers' Association will hold its spring meeting in Preston, beginning the evening of April 29, and continuing over the 30th. Mr. N. E. France, General Manager of the National, will attend the meeting, exhibit the workings of a German wax-press, and make the meeting generally interesting in answering questions and giving instructions in up-to-date apiculture. Mr. France will also speak on the following subjects: "The Busy Bee;" "Foul Brood and How to Cure It;" "Illustrated by Samples and Charts;" "Marketing Our Next Honey Crop;" "Buying Supplies in Car-Load Lots Next Year;" "Benefits of the National Association to Its Members;" and "The Benefits of a Honey Exchange." C. D. Hitchcock will speak on "Finishing Up Comb Honey;" E. A. Crowell, on "The Value of Good Queens Over Poor Ones, and How to Get Them;" "The Value of Text-Books and Bee-Papers;" and "Marketing Our Next Honey Crop," by members of the Association.

The Question-Box will be a prominent feature of the meetings. Questions will always be in order, and will be freely answered.

Kindly tell your friends and neighbors who have bees, of time and place of this convention and the treat that awaits them, and urge them to come.

P. B. RAMER, Sec.

Standard Italian Queens

OF THE HIGHEST GRADE.

Bred in Separate yards from superior stock of Golden and Leather-colored Strains. Selected from among the best stock of Long Tongue Clover and Honey-Queens in America. Bred by us with the greatest care for business. No disease among our bees. Our elevated country, with its pure mountain air and pure sparkling spring water furnishes the ideal place of health for bees and man. See our circular for the rest. Queens sent out last season by us arrived in the very best shape, except a few got chilled late in the season in the North. Our Queens have gone to California, Oregon, Canada, Colorado, Cuba, New Mexico, and many of the States. We rear all queens sent out by us from the egg or just-hatched larva; in full colonies. Our method is up-to-date. If you want to know what we have, and what we can do, in the way of fine, large, prolific QUEENS, and how quick we can send them, just give us a trial order.

Prices: Untested Queens, \$1.00; 6 for \$5.00; 12 for \$9.00.

Tested, \$2.00; Select, \$3.00; Best, \$5.00.

Full Colonies, with Tested Queen, \$6.00.

3-frame Nuclei, wired Hoffman frames, no Queen, \$2.00; 2-frame, no Queen, \$1.50. (Add price of Queen wanted to price of Nuclei.)

Special rates on Queens by the 100. Safe arrival and satisfaction guaranteed. Shipping season begins in April. Write for circular. It is FREE.

T. S. HALL,

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ROOTS GOODS AT ROOT'S PRICES

Everything used by bee-keepers. POWDER'S HONEY-JARS. Prompt service. Low Freight Rates. NEW CATALOG FREE.

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Found at Last!



A place where I am rearing QUEENS for Business, Gentleness, Beauty, and For Sale. Prices:

Untested, each, 75c; doz. \$7.50
Tested, each, \$1.00; doz. \$10.

Either Golden or leather-colored strains warranted pure.

Remit by Postal DANIEL WURTH.

Queen Specialist,

Money Orders.

17D4t KARNES CITY, KARNES CO., TEXAS.

Tip-Top Glass Honey-Jars



1-pound.



7-ounce.



3/4-pound.

The pictures shown herewith represent the best Jars for honey that we know of. They are made of the clearest flint glass, and when filled with honey, and neat labels attached, they make as handsome packages as can be

imagined. The glass top rests on a flat rubber ring, and is held in place by a flat steel spring across the top as shown. They are practically air-tight, thus permitting no leak, which is an important thing with honey-sellers.

We can furnish these Jars, L.o.b. Chicago, at these prices:

	1 gross.	2 gr.	4 gr.
1-lb. Jars	\$5.00	\$9.50	\$18.00
3/4-lb. "	4.50	8.50	16.50
7-oz. "	4.00	7.50	14.50

If you try them once you will likely use no other kind of top or sealing arrangement for honey-jars.

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Italian Queens, Bees and Nuclei.



We have a strain of bees bred specially for honey-gathering and longevity, at the following prices:

One Untested Queen	\$1.00
One Tested Queen	1.35
One Select Tested Queen	1.50
One Breeder Queen	2.50
One Comb Nucleus (no Queen	1.40

Tested ready now; untested in May. Safe arrival guaranteed. For price on Doz. lots send for catalog.

J. L. STRONG,
16Atf 204 E. Logan St., CLARINDA, IOWA

HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, April 7.—Choice to fancy white comb honey sells in a limited way at 15¢@16¢ per pound. There is no certain price for other grades, but they sell slowly at 3¢@5¢ less per pound. Extracted, 6¢@7¢ for white grades; ambers, 5¢@6¢. Beeswax, 32¢ per pound.

R. A. BURNETT & Co.

ALBANY, N. Y., Mar. 14.—Honey demand quiet; receipts and stock light. Comb selling, light, 15¢; mixed, 14¢@15¢; dark, 13¢@14¢. Extracted, dark, at 7¢@7½¢. Beeswax firm, 30¢@32¢.

H. R. WRIGHT.

KANSAS CITY, Apr. 2.—Our market is almost bare of comb honey; the demand is good. We quote you as follows: Fancy white comb, 24 sections, \$3.50; No. 1, white, \$3.40; No. 2, white and amber, \$3.25. Extracted, white, 6¢; amber, 5¢@6¢. Beeswax No. 1, per pound, 25¢.

C. C. CLEMONS & Co.

CINCINNATI, March 11.—The demand for extracted honey is good at the following prices: Amber, barrels, 5¢@6¢, according to quality; white clover, 8¢@9¢. Fancy comb honey, 15¢@16¢. Beeswax strong at 30¢.

THE FRED W. MUTH CO.

NEW YORK, April 8.—Comb honey is moving rather slowly of late and prices are somewhat declining. We quote fancy white at from 14¢@15¢; No. 1, white, 13¢; amber, 11¢@12¢. Extracted quiet and easy, with plenty of supply. We quote white at 6¢@7¢; light amber, 5¢@6¢; dark at 5¢. Beeswax steady at 30¢@31¢.

HILDRETH & SEIGLER.

CINCINNATI, April 7.—The comb honey market has weakened a little more; is freely offered at following prices: Fancy white, 14¢@15¢; no demand for ambers whatever. The market for extracted has not changed and prices are as follows: Amber in barrels, 5¢@5½¢; in cans, 6¢@6½¢; white clover, 8¢@8½¢. Beeswax, 28¢@30¢.

C. H. W. WEBER.

SAN FRANCISCO, Mar. 11.—White comb honey, 12¢@13¢; amber, 9¢@11¢; dark, 7¢@7½¢. Extracted, white, 6¢@7¢; light amber, 5¢@6¢; amber, 5¢@5½¢; dark, 4¢@4½¢. Beeswax, good to choice, light, 27¢@29¢; dark, 25¢@26¢.

Demand is fair on local account for water-white, uncandied, but there is not much of this sort obtainable. Market for same is firm at ruling rates. Candied stock and common qualities are going at somewhat irregular and rather easy figures, holders as a rule being desirous of effecting an early clean-up.

WANTED WHITE CLOVER EXTRACTED HONEY!

Send sample and best price delivered here; also Fancy Comb wanted in no-drip cases.

THE FRED W. MUTH CO.

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are no better than those we make, and the chances are that they are not so good. If you buy of us you will not be disappointed. We are undersold by no one. Send for new catalog and price-list and free copy of THE AMERICAN BEE-KEEPER; in its thirteenth year; 50 cents a year; especially for beginners.

—THE—
W. T. Falconer Mfg. Co.,
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W. M. GERRISH, Epping, N.H., carries a full line of our goods at catalog prices. Order of him and save the freight.

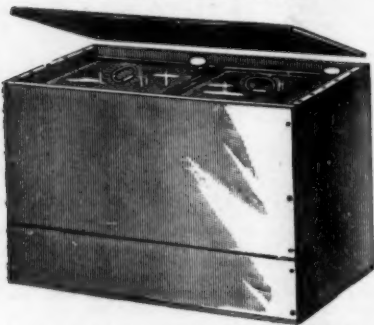
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White Alfalfa Honey

ALL IN 60-LB. CANS



A sample by mail, 10c for package and postage. By freight, f.o.b. Chicago: 2 cans in box (120 lbs.) at 7½ cents a pound. We can furnish Basswood Honey at ½¢ a pound more.

This Alfalfa Honey should go off like hot-cakes. Better order at once, and get a good supply for your customers.

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Up First Flight.

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\$300,000,000.00 A YEAR
and you may have part of it if you work for us. Uncle Sam's poultry product pays that sum. Send 10c for samples and particulars. We furnish capital to start you in business. Draper Publishing Co., Chicago, Ill.

26th
Year

Dadant's Foundation

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Year

We guarantee Satisfaction. What more can anybody do? BEAUTY, PURITY, FIRMNESS, No SAGGING, No LOSS. PATENT WEED-PROCESS SHEETING.

Why does it sell so well? Because it has always given better satisfaction than any other. Because in 25 years there have not been any complaints, but thousands of compliments.

Send name for our Catalog, Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

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 OF ALL KINDS *****

Very fine pure-bred BARRED PLYMOUTH ROCK Chickens and Eggs for sale at very low prices.

Langstroth on the Honey-Bee—Revised,
The classic in Bee-Culture—Price, \$1.20, by mail.

BEESWAX WANTED
at all times.

DADANT & SON,
Hamilton, Hancock Co., Ill

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Everything —FOR— Bee-Keepers

Our Catalog for this season has been fully revised. This quotes our latest prices on our full line of Supplies for the Apiary. It contains a vast amount of valuable information and is free for the asking. If you have not already received a copy, send to the address nearest, and by placing your order there, you will save in freight charges and secure quick delivery.

La correspondencia puede ser en Espanol.

A solicitud se envia el catalogo Espanol gratis.

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Wm. Boxwell, Patrickswell, Limerick, Ireland.

LOCAL DEALERS.

Besides these dealers who get carload lots there are many local dealers handling supplies for their localities who obtain their supply either at Medina or of one of the above-named jobbers, as may be most convenient. These are dealers in general merchandise, or progressive bee-keepers, or others interested in improved methods of bee-keeping in their locality. If there is such a dealer in your vicinity, it will be to your interest to place your order with him; but be sure to insist on having Root's Goods, and do not accept inferior substitutes.